



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,823	06/26/2003	Satoshi Takenaka	105012.01	4095
25944	7590	12/03/2003	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			LEE, HSIEN MING	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/603,823	TAKENAKA, SATOSHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hsien-Ming Lee	2823	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☒ Certified copies of the priority documents have been received in Application No. 09/524,725.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
     a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. The disclosure is objected to because of the following informalities: need updating “CROSS RELATED APPLICATION DATA” since 09/524,725 has been issued as US 6,614,053.

#### ***Claim Objections***

2. Claims 1-6 are objected to because of the following informalities: lacking antecedent basis, i.e. **the** interlayer insulating film in claims 1 (line 14), claim 2 (line 16), claim 3 (line 18), claim 4 (line 13), claim 5 (line 10) and claim 6 (line 12); “the scanning line” (claim 6, line 6); and “the data line (claim 6, lines 7-8). Appropriate correction is required.

#### ***Allowable Subject Matter***

3. Claims 1-6 would be allowable if rewritten or amended to overcome the objection as set forth in this Office action.

4. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Nishimura et al. to US 6,462,802, teaches a method of producing an active matrix substrate, comprising:

- forming a semiconductor film 401 used to form the TFT, and then forming a gate insulating film 106 used to form the TFT (Fig.4A);
- forming a conductive film 107 used to form a gate electrode of the TFT transistor and then patterning the conductive film 107 so as to form the gate electrode (Fig.4B);
- selectively introducing an impurity into the semiconductor film 401 to form source and drain regions 109 of the TFT (Fig.4E);

- forming an interlayer insulating film 110 in a layer on the surface of the gate electrode (Fig.8);
- forming a contact hole, for connection to the TFT, in the interlayer insulating film 110.

In contrast, Nishimura et al. neither teach or suggest *simultaneously* forming the semiconductor film *for film quality evaluation* in a region to be used as the quality evaluation region; *simultaneously* forming a gate insulating film in the region to be used as the *film quality evaluation region*; *simultaneously* removing the conductive film from the *film quality evaluation region*; *simultaneously* introducing the impurity also into the semiconductor film for film quality evaluation via the gate insulating film *in the evaluation region*; *simultaneously* forming the interlayer insulating film in the *evaluation region*, in a layer on the surface of the gate insulating film in the evaluation region; and *simultaneously* forming, in the *film quality evaluation region*, the opening in the interlayer insulating film in the *evaluation region* and in the gate insulating film in the *evaluation region*.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-Ming Lee whose telephone number is 703-305-7341. The examiner can normally be reached on M-F (9:00 ~ 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 703-306-2794. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Application/Control Number: 10/603,823  
Art Unit: 2823

Page 4

Hsien-Ming Lee  
Examiner  
Art Unit 2823

A handwritten signature in cursive script, appearing to read 'Hsien-Ming Lee'.

Nov. 30, 2003